

RUSSIA'S GIANT POLAR INSTITUTE

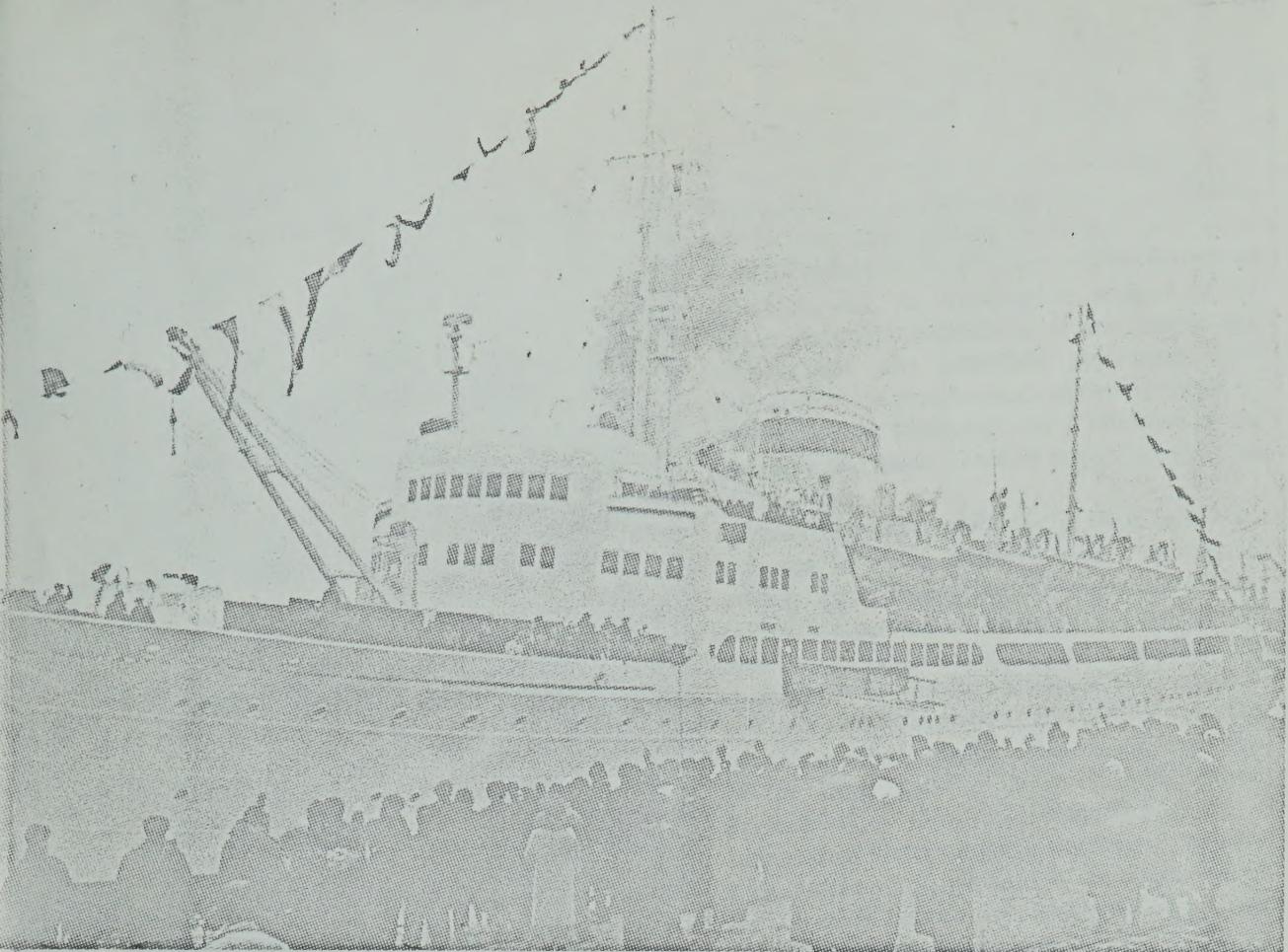
by DR TERENCE ARMSTRONG

VISITORS to Leningrad may notice, on the Fontanka Canal not far from its intersection with the Nevsky Prospekt, a handsome 18th-century building with white and ochre walls. This, once the palace of the Counts Sheremet'yev, has been for many years the headquarters of the largest institute in the world devoted to polar studies.

The Arctic and Antarctic Research Institute reckons its activity as starting in 1920—the same year, incidentally, as the Scott Polar Research Institute at Cambridge—when a group of scientists became, with the sanction of Lenin, the Northern Scientific Industrial Expedition. There were further changes of name, but the Institute achieved fame under the simple title of the Arctic Institute, which it bore from 1930 to 1958. It was at the centre of the great surge of interest and activity in the Arctic stimulated by the Soviet Government in the 1930s, and was closely associated with Professor O. Yu. Shmidt, who was its Director before being promoted to be the Head of the new government department set up

to co-ordinate Arctic work—the Northern Sea Route Administration.

As the addition of the word 'Antarctic' to its title suggests, the Institute has taken on responsibility for much of the scientific work done by the Soviet Antarctic expeditions of the last ten years. The present Director, A. F. Treshnikov, was leader of the second of these expeditions, that of 1956-8, and one of his senior staff, M. M. Somov, was leader of the first, eighth and ninth, and has a continuing interest in Antarctic research. But the Arctic still absorbs the main part of the effort. It is here, after all, that the Soviet Union has many important practical interests, notably resource exploitation and the transport system that must accompany it. Latterly, problems associated with shipping have claimed most of the Institute's time: the oceanography of the seas north of the U.S.S.R., and, by extension, of the whole Arctic Ocean; the behaviour of the ice, and how it can be forecast; the same for the weather, and for other geo-



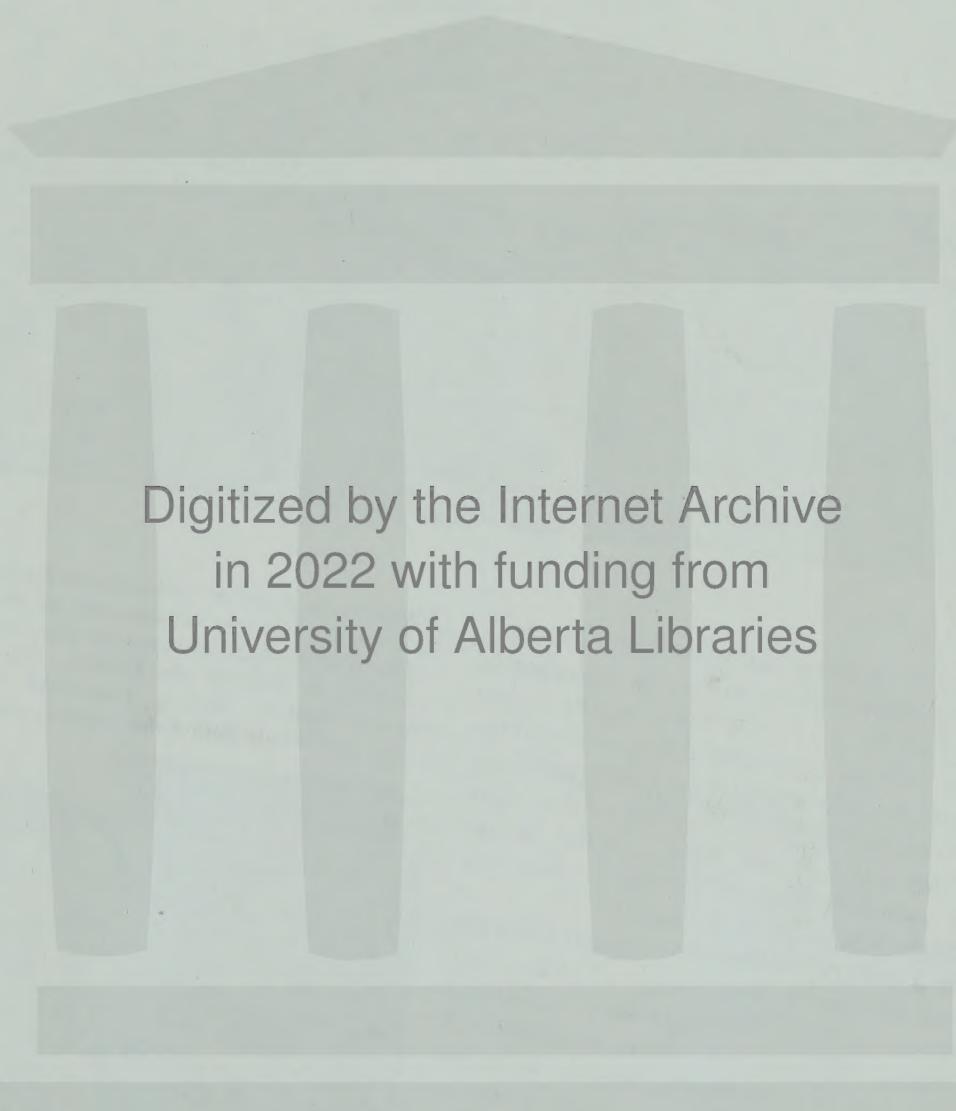
physical phenomena like magnetism. Although all these subjects come within the discipline of geography as it is understood in the Soviet Union, there is a geographical department of the Institute, and this includes sections specializing in geomorphology and in historical studies. Since 1963 the Institute has been attached to the Chief Administration of the Hydro-Meteorological Service of the U.S.S.R.

The Leningrad headquarters houses some 500 people. Between a third and a half of these are graduate scientists, the rest technical or clerical assistants. The Institute is closely associated with the hundred or more weather stations along the Arctic coast. Fostering public interest is seen as one of its tasks, and this is performed by the Museum of the Arctic and Antarctic, a separate building in Leningrad, where there are excellent and up-to-date displays on all aspects of polar work.

One of the most spectacular of the Institute's projects has been the establishment and manning

(Opposite) Sheremet'yev palace on the Fontanka Canal in Leningrad, now the headquarters of the Institute. (Above) The Ninth Soviet Antarctic Expedition leaving Leningrad in 1963 in the Estonia. The Institute's Director (below), Aleksey Fedorovich Treshnikov, centre, explorer of both Polar regions, and the author





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Mikhail Ivanovich Belov, the eminent historian of the Institute, works on a chart of the first Russian Antarctic expedition, led by Bellingshausen in 1819-21

of a series of drifting stations on the ice of the Arctic Ocean. The idea was shown to be workable when four Russians, led by Ivan Papanin, were deposited at the North Pole in 1937 and picked up nine months later off East Greenland. Beginning in 1950, and continuously since 1954, Arctic Institute teams have manned stations which have drifted all over the Arctic Ocean. Oceanography, ice studies and weather reporting have been their main preoccupations. If Papanin's station was No. 1, today Nos. 13 and 15 are at work. Each has fifteen to thirty men, and the normal spell of duty is a year. When a station gets too far away, or enters a less interesting area, or appears about to drift out of the Arctic Ocean, it is abandoned and a new one established elsewhere. Each spring and autumn a large re-supply operation is mounted by air, and during it the aircraft make many landings on the ice and thus supplement the data obtained at the stations.

Treshnikov and Somov have each been leaders of drifting stations.

The Institute publishes the results of its research in three main series: the *Transactions*, which first appeared in 1933 and have now reached Volume 273; *Problems of the Arctic and Antarctic*, and the *Information Bulletin of the Soviet Antarctic Expedition*. Other papers and monographs are published separately, and special mention must be made of the monumental *History of the Discovery and Utilization of the Northern Sea Route*, three of whose five volumes are now out.

Many first-class men have in their time been attracted to work at the Institute. Among its leading lights today, besides those mentioned, are Ye. S. Korotkevich, biologist and geographer, now Deputy Director for Antarctic Research and in charge of producing an atlas of the Antarctic; L. L. Balakshin, member and leader of a number of Arctic oceanographic expeditions, and head of the Department of Scientific Information; Professor A. A. Girs, head of the Department of Long-range Meteorological Forecasts; Professor I. S. Peschanskiy, glaciologist in charge of the Ice Research Laboratory, which includes a tank for testing model ships in ice; V. M. Driatskiy, Head of the Geophysics Department and a specialist in geomagnetism; P. A. Gordiyenko, a leading sea-ice expert; and Professor M. I. Belov, historian and author of two of the three volumes on the history of the Northern Sea Route just mentioned, and of much else besides. Mention must also be made of Professor Ya. Ya. Gakkel', who, until his death on December 30, 1965, was Head of the Geography Department and the acknowledged authority on the submarine topography of the Arctic Ocean. One of the most striking features of the way the Soviet Government runs polar studies, and this Institute in particular, is the continuity it can ensure by providing careers in the subject. None of those just listed have been less than twenty years in polar work, some much longer.

A number of polar specialists from outside the Soviet Union have visited the Institute since the war and received a warm welcome. I was fortunate enough to be among the first of these. I know that both guests and hosts want to see co-operation still further extended.

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